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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Susanne Emig

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BACHMAN & LAPOINTE, P.C.

900 CHAPEL STREET

SUITE 1201

NEW HAVEN, CT 06510

EXAMINER

HELM, CARALYNNE E

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/555,040	Applicant(s) EMIG ET AL.	
	Examiner CARALYNNE HELM	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-92 is/are pending in the application.
- 4a) Of the above claim(s) 51-57,67-75,77,87 and 92 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-50,58-66,76,78-86 and 88-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/10/09, 11/10/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

To summarize the current election, applicants elected, without traverse, Group I and the species where in the polyvalent ester R is a branched hydrocarbon residue with 5 carbons, W=X=Y=Z: -C(O)O- R1=R2=R3=R4: linear long-chain hydrocarbon residue with 21 carbon (pentaerythritol tetrabeheenate), the emulsifier is cetyl PEG/PPG-10/1 dimethicone, the volatile silicone is decamethyl cyclopentasiloxane and the solids are inorganic pigments.

Claims 51-57, 67-75, 77, 87, and 92 were withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim.

Terminal Disclaimer

The terminal disclaimer filed on November 9, 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of a patent granted on US application No. 11/189255 has been reviewed and is accepted. The terminal disclaimer has been recorded.

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NEW REJECTIONS

Claim Objections

Claim 62 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim recites that "the silicone oil is a non-volatile silicone oil..." yet its parent claim recites the presence of a volatile silicone as opposed to a general silicone oil.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully considered and

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analyzed in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. (Us Patent No. 6,391,322) in view of US PGPub No. 2003/0064046), Krzysik et al. (us Patent No. 6,503,526) and as evidenced by the Abil® EM 90 reference (previously cited).

Roulier et al. teach a set of compositions that are in the form of water-in-oil emulsions (see abstract). The compositions are taught to contain an oily phase with at least one wax and a silicone emulsifier (see claim 1). Abil® EM 90 is one preferred emulsifier (see column 4 lines 7-8). The Abil EM90 reference teaches that this emulsifier is known under the name cetyl PEG/PPG-10/1 dimethicone (see page 1 and page 2 column 1; instant claims 64-66). This emulsifier is taught to be introduced into the composition in a volatile or non-volatile silicone oil, where cyclomethicones are envisioned (see column 3 lines 62-65; instant claim 61). The waxes are envisioned as

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fatty esters that are solid at 25°C and more particularly have a melting temperature above 65°C (see column 3 lines 4-5 and 8-12; instant claim 44). These waxes are present at from 5% to 15% (see column 3 lines 26-30; instant claims 58-59). The oily phase is also taught to preferably contain additionally fatty substances where volatile silicone oils are envisioned (see column 4 lines 39-40 and 43 and claim 8; instant claim 44). Roulier et al. go on to teach the inclusion of filler materials in the form of zinc oxide, titanium oxide and titanium dioxide as well as sunscreen agents (see column 4 lines 17-26; instant claims 76 and 86). These components are present at 1 to 12% (see column 4 lines 53-55; instant claims 78-80). Roulier et al. teach their composition for use to treat, care for, protect or cleanse the skin as well as in make up products (see column 5 lines 5-18; instant claims 88-90). Roulier et al. do not explicitly teach pentaerythritol tetrabehenate as the fatty ester or decamethyl cyclopentasiloxane as the volatile silicone oil.

Omura et al. teach water-in-oil emulsions for cosmetic compositions (see abstract). These compositions also teach the inclusion of silicone oils in the oily phase and exemplify several particular varieties (see paragraph 37). Decamethyl cyclopentasiloxane is taught within this set of exemplified options (see paragraph 37).

Krzysik et al. teach a set of fatty esters with a melting point above 35°C that are suitable for use in compositions intended to protect or repair skin as well as cosmetic applications (see column 4 lines 5-9 and 14-17). One of these fatty esters that also has the preferred melting point of Roulier et al. is pentaerythritol tetrabehenate (see column 5 lines 45-46 and 66-65, column 6 line 16).

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In light of the teachings of Krzysik et al. of functionally equivalent fatty acid esters that are solid at room temperature and are suitable for the applications of Roulier et al., it would have been obvious to one of ordinary skill in the art to select any one of them that meets the preference of Roulier et al. and melts above 65°C. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to select pentaerythritol tetrabehenate from the list of options in Krzysik et al. Additionally, since both Roulier et al. and Omura et al. teach water-in-oil emulsions that include silicone oils in the oily phase, it would have been obvious to select any particular silicone oil taught by Omura et al. to use in the invention of Roulier et al. Thus the selection of decamethyl cyclopentasiloxane would have also been obvious to this ordinarily skilled artisan. Routine optimization that would have been obvious to one of ordinary skill in the art would have achieved the claimed proportions of volatile- and non-volatile silicone oil (see instant claim 61). According to MPEP 2112.01, "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." This treatment results from *In re Spada*, which states that, "Products of identical chemical composition can not have mutually exclusive properties." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Since all the claimed components would have been present in the claimed arrangement in the composition based upon the combined references, and absent evidence to the contrary, the composition would also have the same claimed viscoelastic properties (see instant claim 91). Therefore claims

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44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 are obvious over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 61, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Stepniewski et al. (US Patent No. 5,599,533).

Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with volatile and non-volatile silicone oils. This modified reference does not explicitly teach a particular non-volatile silicone oil.

Stepniewski et al. teach stable water-in-oil emulsions for personal care preparations (see abstract). They go on to teach the inclusion of non-volatile silicone oils in the compositions and provide a listing of several known suitable varieties (see column 3 lines 21-22). Particular non-volatile silicone oils include cetyl dimethicone (see column 3 lines 26-27).

It would have been obvious to one of ordinary skill in the art to select cetyl dimethicone as the non-volatile silicone oil in the invention of Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference since it was a known particular variety of the non-volatile silicone oil utilized in water-in-oil emulsions as taught by Roulier et al. Therefore claims 44, 61, and 63 are obvious over Roulier et

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al. in view of Omura et al., Krzysik et al., and Stepniewski et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 76, and 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Katsuyama et al. (previously cited).

Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with zinc oxide at the claimed proportion and sunscreen actives (see instant claims 44, 76, and 82). This modified reference does not explicitly teach the size of the zinc oxide particles.

Katsuyama et al. teach ultraviolet-screening zinc oxide particles (see abstract). Specifically, Katsuyama et al. teach the size of zinc oxide particles for sunscreen purposes is 50 nm to 100 nm (see column 2 lines 12-23; instant claim 81). In addition, they teach that the particles can perform their intended screening function when incorporated at 10 wt% into a topical composition (see example 4; instant claim 83).

Since Roulier et al. teaches the incorporation of zinc oxide as well as sunscreen agents, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the zinc oxide particles of Katsuyama et al. as the zinc oxide particles in Roulier et al. in view of Omura et al. and Krzysik et al. and as evidenced by the Abil® EM 90 reference at 50 nm. Therefore claims 44, 76, and 81-83 are obvious over Roulier

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et al. in view of Omura et al. and Krzysik et al. and Katsuyama et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 76, 81, and 84-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al., Krzysik et al., and Katsuyama et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Wendel et al. (previously cited).

Roulier et al. in view of Omura et al., Krzysik et al., and Katsuyama et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with zinc oxide nanopigment and sunscreen actives (see instant claims 44, 76, and 81). This modified reference does not explicitly teach both 3-methylbenzydiene camphor and isoamyl p-methoxycinnamate in the composition as sunscreen agents.

Wendel et al. teach compositions with combinations of ultraviolet light filters where zinc oxide particulates less than 300 nm are envisioned (see paragraphs 31-32). Additional UV filters are also taught that include 3-(4-methylbenzydiene) camphor and isoamyl p-methoxycinnamate (see paragraphs 80 and 92; instant claims 84-85).

"It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) see MPEP 2144.06. Therefore since zinc oxide nanopigment, 3-(4-methylbenzydiene) camphor, and isoamyl p-methoxycinnamate are all known as UV filters, it would have been obvious to one of

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ordinary skill at the time of the invention include all three of them as the sunscreen agents in the composition of Roulier et al. in view of Omura et al., Krzysik et al. and Katsuyama et al. as evidenced by the Abil® EM 90 reference. Therefore claims 44, 76, 81, and 84-85 are obvious over Roulier et al. in view of Omura et al., Krzysik et al., Katsuyama et al., and Wendel et al. as evidenced by the Abil® EM 90 reference.

Response to Arguments

Applicant's arguments, filed November 9, 2009, with respect to the rejection(s) of claims 44-50,58-66,76,78-86 and 88-91 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Roulier et al., Omura et al., and Krzysik et al. instead of Kouzuki et al., Pantich et al. and Kuo et al.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections detailed above are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is

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(571)270-3506. The examiner can normally be reached on Monday through Friday 9-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax can be reached on 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caralynne Helm/
Examiner, Art Unit 1615

/Robert A. Wax/
Supervisory Patent Examiner, Art Unit 1615